



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,157	11/21/2003	Howell Schwartz	DC-05505	2121

33438 7590 03/28/2005
HAMILTON & TERRILE, LLP
P.O. BOX 203518
AUSTIN, TX 78720

EXAMINER

BLACKMAN, ROCHELLE ANN J

ART UNIT PAPER NUMBER

2851

DATE MAILED: 03/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/719,157

Applicant(s)

SCHWARTZ ET AL.

Examiner

Rochelle Blackman

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-18 and 20 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 23 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claims 17, 18, and 20 are objected to because of the following informalities: the dependency of these claims should be changed from "claim 17" to - -claim 16- -. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 and 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Uchihashi et al. (U.S. Patent No. 5,469,027).

Regarding claims 1-4, Uchihashi disclose a system (see FIGS. 1-14) for managing projector bulb life, the system comprising: a luminance sensor (see 50 pr 153) disposed to sense the luminance of the projector bulb; a luminance controller (see 70, 70A, or 70B) interfaced with the luminance sensor and a power driver (see 120 or 156, 157) of the projector bulb, the luminance controller operable to reduce the power driver output to limit projector bulb luminance at or below a setpoint level associated with a desired projector bulb life if the maximum luminance of the projector bulb is greater than a predetermined brightness (for example, see col. 9, lines 1-50) wherein

Art Unit: 2851

the luminance controller is further operable increase power driver output to maintain projector bulb luminance substantially at the setpoint level if the sensed luminance falls to a predetermined brightness (also see col. 9, lines 11-50); a switch (21) disposed between the power driver and the luminance controller, the switch operable to selectively disable the projector bulb luminance controller interface with the power driver; wherein the projector bulb comprises an ultra high pressure mercury vapor bulb (see 1). The method claims of 8-11 are similarly met by the features and functions of the above-mentioned elements.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchihashi et al. (U.S. Patent No. 5,469,027) in view of Hecht (U.S. Patent No. 6,637,893).

Uchihashi discloses the claimed invention except the projector bulb comprising a "xenon halogen bulb".

Hecht teaches providing the projector bulb comprising a xenon halogen bulb (20).

It would have been obvious to one of ordinary skill in the art at the time invention was made to provide the "system" of the Luerkens reference with a xenon halogen bulb, as taught by Hecht in order to provide a high intensity unit capable of providing a structured light beam of sufficient lumens toward an object.

2. Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchihashi et al. (U.S. Patent No. 5,469,027) in view of Luerkens et al. (U.S. Patent No. 6,779,896).

Uchihashi discloses the claimed invention except for wherein the luminance sensor comprises an "infrared sensor" associated with an infrared filter of the projector; and "passing the light from the projector bulb through an infrared filter; wherein sensing the luminance further comprises sensing the infrared light at the infrared filter".

Luerkens teaches providing wherein the luminance sensor comprises an infrared sensor (130) associated with an infrared filter (see 140 – considered to be an "infrared filter" because it is a high-pass filter) of the projector; and passing the light from the projector bulb through an infrared filter (130); wherein sensing the luminance further comprises sensing the infrared light at the infrared filter (see 140 – considered to be an "infrared filter" because it is a high-pass filter).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the Uchihashi reference with the infrared sensor and filter, as taught by Luerkens in order to avoid any adverse effect on control due to certain measurement errors that may be obtained (see col. 3, lines 30-50).

3. Claims 7, 13-18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchihashi et al. (U.S. Patent No. 5,469,027) in view of Stark et al. (U.S. Patent No. 6,520,648).

Uchihashi discloses the claimed invention except for wherein the luminance sensor comprises a "visible light sensor" aligned to sense light leakage from a "mirror" of the projector; "passing the light from the projector bulb through a first aperture to a columnator for illuminating an image and passing the light from the projector bulb through a second aperture to a luminance sensor for sensing the luminance"; providing light for a "digital mirror device" projector having a "color wheel", and wherein sensing the luminance further comprises sensing luminance at the "color wheel"; wherein the bulb provides light for a "digital mirror device projector" having a "mirror" for projecting an image, and wherein sensing the luminance further comprises sensing luminance of light leakage at the "mirror"; a "projector for display of information"; and wherein the image comprises output of a "digital mirror device".

Stark teaches providing wherein the luminance sensor comprises a visible light sensor (162) aligned to sense light leakage from a mirror (130) of the projector; passing the light from the projector bulb through a first aperture (see 122 and entrance thereof in FIG. 3) to a columnator (see 122) for illuminating an image and passing the light from the projector bulb through a second aperture (see 158 and entrance thereof in FIG. 3) to a luminance sensor (162) for sensing the luminance; wherein the bulb provides light for a digital mirror device projector (see 110, 130) having a color wheel (120), and wherein sensing the luminance further comprises sensing luminance at the color wheel (see

Art Unit: 2851

162); wherein the bulb provides light for a digital mirror device projector (see 110, 130) having a mirror (130) for projecting an image, and wherein sensing the luminance further comprises sensing luminance of light leakage at the mirror (see function of 162); a projector (110, 130) for display information; and wherein the image comprises output of a digital mirror device (see 130).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the Uchihashi reference with the salient features of Stark in order to improve brightness, color saturation, and color balance for a projected image (see col. 2, lines 35-38).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rochelle Blackman whose telephone number is (571) 272-2113. The examiner can normally be reached on M-F 8:00-4:30.

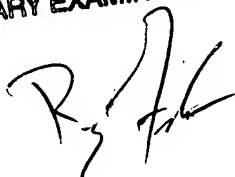
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2851

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RB

RODNEY FULLER
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to be 'R. Fuller', written over the printed name of the examiner.